IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

U.S. Patent No. 7,645,733 B2 Application No. 10/573,905

Issued: January 12, 2010 International Filing Date: September 29, 2004

Patentee: Brines et al. Attorney Docket No. 10165-042-999

For: TISSUE PROTECTIVE CYTOKINES FOR THE

TREATMENT AND PREVENTION OF SEPSIS AND THE FORMATION OF ADHESIONS

REQUEST FOR CERTIFICATE OF CORRECTION

Commissioner for Patents

ATTN: Certificate of Correction Branch P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. § 1.322, the Patentee hereby requests the issuance of a Certificate of Correction in connection with the above-identified patent. A Certificate of Correction setting forth the necessary correction is submitted herewith.

On the title page of the issued patent, the city of co-Assignee Warren Pharmaceuticals, Inc. is incorrectly recited as "Ossinin." Patentee requests that the city of co-Assignee Warren Pharmaceuticals, Inc. be amended to recite "Ossining."

Claim 3 in the issued patent incorrectly recites "... method of <u>claims</u> 1, wherein the carbamylation of the <u>erythropeietin on</u> at least six lysine...." Patentee requests that claim 3 be amended to recite "... method of claim 1, wherein the carbamylation of the erythropoietin is on at least six lysine...."

In support of its request, Patentee submits herewith as Appendix A copies of the following documents in connection with U.S. Application Serial No. 10/573,905, on which the above-identified patent is based: Notice of Recordation Document, dated July 13, 2006; Fee Transmittal mailed with payment of the issue fee on November 20, 2009; and an Amendment,

filed April 24, 2009, which contains a listing of the claims that were allowed pursuant to the Notice of Allowability mailed August 21, 2009 (also included in Appendix A).

Patentee respectfully submits that no fee is required for this Request because the error was incurred through error of the Patent Office. However, if any fee is deemed necessary, please Respectfully submitted,

Respectfully submitte charge such fee to Jones Day Deposit Account No. 50-3013.

JONES DAY 222 East 41st Street New York, NY 10017 (212) 901-9028

Enclosures

Date:

May 19, 2010

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 7,645,733 B2

DATED : January 12, 2010

Michael Brines

INVENTOR(S) : Anthony Cerami Thomas Coleman

Osman Yilmaz

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, under item (73) Assignees, replace "The Kenneth S. Warren Institute, Inc., Ossining, NY (US); Warren Pharmaceuticals, Inc., Ossinin, NY (US)" with -- The Kenneth S. Warren Institute, Inc., Ossining, NY (US); Warren Pharmaceuticals, Inc., Ossining, NY (US) --.

Claim 3, at column 28, lines 25-28, replace "method of claims 1, wherein the carbamylation of the erythropeietin on at least six lysine" with -- method of claim 1, wherein the carbamylation of the erythropoietin is on at least six lysine --.

MAILING ADDRESS OF SENDER: JONES DAY 222 East 41st Street New York, New York 10017-6702 (212) 326-3939 NYI-4276920V1 FORM PTO 1050 PATENT NO.

7,645,733 B2

No. of add'l. copies @ 30¢ per page

==:>

DocID



UNITED STATES PATENT AND TRADEMARK OFFICE

Under Secretary of Commerce for Intellectual Property and DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

JULY 13, 2006

PTAS

FREDERICK J. HAMBLE WARREN PHARMACEUTICALS, INC. 712 KITCHAWAN ROAD OSSINING, NY 10562

> UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT SERVICES BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 05/31/2006

REEL/FRAME: 017930/0171

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

YILMAZ, OSMAN

DOC DATE: 03/31/2006

ASSIGNEE:

WARREN PHARMACEUTICALS, INC.

712 KITCHAWAN ROAD

OSSINING, NEW YORK 10562

SERIAL NUMBER: 60506149

FILING DATE: 09/29/2003

ISSUE DATE:

PATENT NUMBER: TITLE: TISSUE PROTECTIVE CYTOKINES FOR THE TREATMENT AND PREVENTION OF

SEPSIS AND THE FORMATION OF ADHESIONS

SERIAL NUMBER: 10573905

FILING DATE:

ISSUE DATE:

PATENT NUMBER: TITLE: TISSUE PROTECTIVE CYTOKINES FOR THE TREATMENT OF SEPSIS AND THE 017930/0171 PAGE 2

SERIAL NUMBER: 10573905

FILING DATE: ISSUE DATE:

PATENT NUMBER:

PATENT NUMBER:
PCT NUMBER: US0431789

TITLE: TISSUE PROTECTIVE CYTOKINES FOR THE TREATMENT OF SEPSIS AND THE

ASSIGNMENT SERVICES BRANCH PUBLIC RECORDS DIVISION

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

			er FIX (3	0/1)-4/3-4885			
INSTRUCTIONS: This appropriate. All further indicated unless correct maintenance for soil fice	196 DONOW OF CRITECISE OF	for transmitting the ISS ing the Patent, advance of herwise in Block I, by (UB FEE and PUBLICA' proors and notification of (a) specifying a new corr	TION PEE (if requirements of the washington address;	red). Blocks 1 through 5 sill be mailed to the current and/or (b) indicating a sep-	bould be completed when correspondence address a srate "FEE ADDRESS" &	
CURRENT CORRESPONDENCE ADDRESS Obser the Black for any shange of address)				Note: A certificate of mailing can only be used for domestic mailings of the Foo(s) Transmittal. This certificate cannot be used for any other accompanying pepers. Each additional space, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
61297	7590 06/2	1/2009	ha			•	
WARREN PHARMACEUTICALS, INC 712 KITCHAWAN ROAD OSSINING, NY 10562				Certificate of Mailing or Transmission I hereby certify that this Foo(s) Transmitted is being deposited with the United States Foctal Service with sufficient postage for first class mail is an envelope addressed to the Mail Stop ISSUE FEE addressed shows, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.			
		,			·	(Dependen's name)	
						(Signalure)	
						(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTO	R	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/573,905	05/30/2006		Michael Brines		WP03-1 A04-US	· 2092 ··	
ADHESTONS		*		···	EPSIS AND THE FORMA	TION OF	
APPLN. TVPE	SMALL ENTITY	ISSUE PEE OUE	PUBLICATION PER DUE	1		DATE DUE	
nonprovisional	МО	\$1510	\$300		\$1810	11/23/2009	
examiner		ARTUNET	CLASS-SUBCLASS	J ·			
DEBRRRY,		1647	514-002000			·	
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.163). S. Change of correspondence address (or Change of Correspondence. Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47, Rev 03-02 or more recent) sitsched. Use of a Custerner Number is required.			2. For printing on the patent frost page, list (1) the names of up to 3 registered patent attorneys or agents OR, aboratively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.				
	oss an antignos is ident h in 37 CFR 3.11, Comp		THE PATURT (print or by data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY	ntiont. If an assigner assignment.	is identified below, the do	cument has been filed for	
					icals, Inc., C	٥.	
Ploase obsok the appropri	ate assignor category or	categories (will not be pr	inted on the patent):	Individual Con	poration or other private gro	ap entity Covernment	
4a. The following fco(s) are submitted: State Fine			b. Psymeat of Foo(s): (Please first reapply may previously paid issue for thewn above) A check is enclosed. Psymeat by credit card. Form PTO-2018 is attached. The Director is horeby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 50-3013 (coolose an extra copy of this form).				
a. Applicant claims	us (from status indicator SMALL ENTTTY statu	. See 37 CFR 1.27,	Db. Applicant is no los	gor claiming SMALL	ENTITY status, See 37 CF	R 1.27(e)(2).	
NOTE: The lasue Foo and necreal as shown by the s	Publication For (if requoected the United State	sired) will not be scoepted to Patent and Traderpark	from sayone other than t	fic applicant; a registe	ored atterney or agent; or the	assignes or ether party in	
Authorized Signature	Meer	7. Jul	ex	Dato /	1/20/09		
Typed or printed name	Eileen E.	Falvey	<u> </u>	Registration No.	46.097.		
First collection of informal application. Confident unspitication. Confident ubmitting the completed his form and/or suggestion Sox 1450, Alexandria, Vi Alexandria, Virginia 2231 Under the Peperwork Red	tion is required by 37 Ci inity is governed by 35 application form to the ness for reducing this the regime 22313-1350. DO 3-1450.	PR 1.311. The information U.S.C. 122 and 37 CFR I USPTO. Time will vary. Gen, should be sent to the NOT SEND FEES OR C eraons are required to resp	n is required to obtain or in 1.14. This collection is est depending upon the individual Chief Information Office OMPLETED FORMS TO pond to a collection of information of the pond to a collection of the pond to a collectio	etain a bonefit by the ilmated to take 12 mis rickal case. Any come x, U.S. Patent and Tr D'THIS ADDRESS, S brroation unless it dis	public which is to file (and intention to complete, including meets on the amount of time address of the Commissioner for the commissio	by the USPTO to process) gathering, preparing, and a your require to complete threat of Commerce, P.O. r Patenta, P.O. Box 1450, tumber.	

RECEIVED CENTRAL FAX CENTER

APR 2 4 2009

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Brines et al.

Confirmation No.: 2092

Serial No.: 10/573,905

Art Unit: 1647

Filed: May 30, 2006

Examiner: DeBerry, Regina M.

TISSUE PROTECTIVE CYTOKINES

Attorney Docket No.: WP03-1A04-US

For:

FOR THE TREATMENT AND

PREVENTION OF SEPSIS AND THE FORMATION OF ADHESIONS

AMENDMENT UNDER 37 C.F.R. § 1,111

Mail Stop Amendment Commissioner for Patents PO BOX 1450 Alexandria, Virginia 22313-1450

Sir:

In response to the outstanding non-final Office Action mailed November 24, 2008, and in accordance with 37 C.F.R. §1.111, please consider the amendments and remarks below and enter them into the record for the application. Concurrently submitted herewith is (1) an Amendment Fee Transmittal; (2) a Petition for Extension of Time for two months, from February 24, 2009 up to and including April 24, 2009; and (3) a Credit Card Form authorizing the payment of fees due.

Amendments to the claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin at page 8 of this paper.

Application No. 10/573,905 Arry. Docket No. WP03-1A04-US 4/24/2009

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

 (Withdrawn) A method of treating, preventing, delaying the onset of, or reducing sepsis in a mammal comprising administering to the mammal a therapeutically effective amount of at least one chemically modified or mutated erythropoietin and a pharmaceutical carrier.

2.-36. (Canceled)

- 37. (Withdrawn) The method of claim 1, wherein said sepsis has not proceeded to septic shock.
- 38. (Withdrawn) A method of enhancing wound healing in a mammal comprising administering to the mammal a therapeutically effective amount of at least one chemically modified or mutated erythropoietin and a pharmaceutical carrier.
- 39. (Currently Amended) A method of treating, preventing, delaying the onset of, or reducing adhesion formation, abnormal fibrous band formation, formation of a connection between organs, or scarring in a mammal comprising administering to the mammal a therapeutically effective amount of at least one crythropoietin that is optionally chemically modified or mutated is chemically modified at one or more lysine residues or the N-terminal amino group, wherein said chemical modification is carbamylation, and a pharmaceutical carrier.
- 40. (Withdrawn) A method of treating, preventing, delaying the onset of, or reducing a condition associated with elevated IL-6 in a mammal comprising administering a therapeutically effective amount of at least one erythropoietin that is optionally chemically modified or mutated in a pharmaceutical carrier.
- 41. (Previously Amended) The method of claim 39, wherein said erythropoietin lacks or is diminished for at least one or more of erythropoietin's erythropoietic effects.

42-48. (Canceled)

恃

175

Application No. 10/573,905 Arry. Docket No. WP03-1A04-US 4/24/2009

- 49. (Withdrawn) A method of treating, preventing, delaying the onset of, or reducing the effects of a condition associated with an effect of proinflammatory cytokines in a mammal comprising administering to the mammal a therapeutically effective amount of at least one chemically modified or mutated erythropoietin, said erythropoietin having at least one polyethylene glycol molecule attached, in a pharmaceutical carrier.
- 60. (Withdrawn) A method of treating, preventing, delaying the onset of, or reducing the effects of a condition associated with proinflammatory cytokines in a mammal comprising administering to the mammal a therapeutically effective amount of at least one chemically modified or mutated erythropoietin in a pharmaceutical carrier, said erythropoietin having at least one polyethylene glycol molecule attached.
- 51. (Withdrawn) The method of claim 49 or 50, wherein said erythropoietin is also carbamylated.
- 52. (Withdrawn) The method of any one of claim 47, wherein said carbamylated erythropoietin is alpha-N-carbamoyl, N-epsilon-carbamoylerythropoietin.
- 53. (Withdrawn) The method of any one of claim 51, wherein said carbamylated erythropoietin is alpha-N-carbamoyl, N-epsilon-carbamoylerythropoietin
- 54. (Withdrawn) The method of any one of claim 47, wherein said carbamylated erythropoietin has at least 90% of the lysines carbamylated, 95% of the lysines carbamylated, or 100% of the lysines carbamylated.
- 55. (Withdrawn) The method of any one of claim 51, wherein said carbamylated erythropoietin has at least 90% of the lysines carbamylated, 95% of the lysines carbamylated, or 100% of the lysines carbamylated.
- 56. (Currently Amended) The method of any one of claims 4739, wherein the earbamylated carbamylation of the crythropoietin basis on at least six lysine residues

Application No. 10/573,905 Arty. Docket No. WP03-1A04-US 4/24/2009

thereof carbamylated, at least seven lysine residues thereof carbamylated, or at least eight lysine residues thereof carbamylated.

- 57. (Withdrawn) The method of claim 49 or 50, wherein the proinflammatory cytokine comprises at least one of Interleukin or TNF.
- 58. (Withdrawn) The method of claim 50, wherein the condition associated with proinflammatory cytokines is an ischemia-related condition, allergy, rheumatic disease, or infection.
- 59. (Withdrawn) A method for treating a condition related to proinflammatory cytokines in a mammal with reduced hematocrit levels comprising administering a therapeutic dose of erythropoietin, said dose sufficient to restore the hematocrit in said mammal, and administering a therapeutic dose of a chemically modified or mutated erythropoietin.
- 60. (Withdrawn) The method of claim 59, wherein said condition is anemia.
- 61. (Withdrawn) The method of claim 60, wherein said anemia is associated with cancer or another chronic disease.
- 62. (Withdrawn) A pharmaceutical composition comprising an amount of at least one chemically modified or mutated erythropoietin effective for use in the method of any one of claims 1, 38 to 40, 49, 50, 58, 59, 60 or 61.
- 63. (Withdrawn) A pharmaceutical composition comprised of an amount of at least one erythropoietin effective for use in the method of any one of claims 39 to 40.
- 64. (Withdrawn) The pharmaceutical composition of claim 62, wherein the erythropoietin (i) lacks or is diminished for at least one of erythropoietin's erythropoietic effects; (ii) has at least one polyethylene glycol molecule attached; or (iii) is carbamylated.

113

- 65. (Withdrawn) The pharmaceutical composition of claim 62, wherein said erythropoietin is alpha-N-carbamoyl, N-epsilon-carbamoylerythropoietin.
- 66. (Withdrawn) The method of claim 38, wherein the wound is a result of one or more of trauma, surgery, pressure, burns, diabetes, or vascular insufficiencies.
- 67. (Previously Presented) The method of claim 39, wherein the adhesion formation is a result of one or more of surgery, trauma, infection, chemotherapy, radiation, or cesarean section.
- 68. (Withdrawn) A method for testing the ability of a chemically modified or mutated erythropoietin to treat, prevent, delay the onset of, or reduce complications of sepsis, adhesions, or inflammation resulting from infection comprising:
 - (i) inducing sepsis, adhesions, inflammation, or a combination thereof in a mammal;
 - (ii) administering to said mammal the erythropoietin to be tested; and
 - (iii) determining the adhesion score of the mammal, wherein if the adhesion score determined in step (iii) is less than the adhesion score absent the crythropoietin then said crythropoietin effectively treats, prevents, delays the onset of, or reduces complications of sepsis, adhesions, or inflammation resulting from infection.
- 69. (Withdrawn) A method for testing the ability of a chemically modified or mutated exythropoietin to treat, prevent, delay the onset of, or reduce complications of sepsis, adhesions, or inflammation resulting from infection comprising:
 - (i) inducing sepsis, adhesions, inflammation, or a combination thereof in a mammal;
 - (ii) administering to said mammal the erythropoietin to be tested; and
 - (iii) determining the illness score of the mammal, wherein if the illness score determined in step (iii) is less than the illness score absent the crythropoietin, then said crythropoietin effectively treats, prevents, delays the onset of, or reduces complications of sepsis, adhesions, or inflammation resulting from infection.

Application No. 10/573,905 Atry, Docket No. WP03-1A04-US 4/24/2009

REMARKS

According to the Office Action mailed November 24, 2008, claims 1, 37-45, and 47-69 are pending in the current application. Claims 1, 37-38, 40, 49-55, 57-66, 68 and 69 have been withdrawn and currently claims 39, 41-45, 47, 48, 56 and 67 are rejected. By this amendment Applicants have: (1) canceled claims 42-45, 47 and 48 without prejudice; (2) amended claim 39 to delete the term "prevent," and the phrase "is optionally chemically modified or mutated;" and (3) amended claim 39 to add "is chemically modified at one or more lysine residues or the N-terminal amino group, wherein said chemical modification is carbamylation," which incorporates the limitations of claims 42 and 47; and (4) amended claim 56 to depend from claim 39 and provide proper antecedent basis for the claim.

Applicants hereby reserve the right to pursue the subject matter of the canceled claims in subsequent filings. These amendments have not added new matter, and Claims 39, 41, 56 and 67 will be pending upon entry of the present amendment.

INFORMATION DISCLOSURE STATEMENT

Applicants acknowledge the Examiner's indication that the various references submitted in Applicant's IDS filed on July 29, 2008 was received and the information contained therein was considered as to the merits. However, although the Office Action, pages 3-4, indicates that the Office Actions and patent interference cited in the IDS were considered, the Examiner has lined through each of these references on the IDS, see pages 4 and 7, indicating that the references have not been considered. Applicants hereby request that the IDS be amended in order to indicate that these submitted references have in fact been considered by the Examiner as the Office Action states.

THE CLAIM REJECTIONS UNDER 35 U.S.C. § 112, FIRST PARAGRAPH, ENABLEMENT, SHOULD BE WITHDRAWN

Claims 39, 41-45, 47, 48, 56 and 67 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Examiner maintains that these claims are not enabled for a method of preventing adhesion formation, abnormal fibrous band formation, formation of a connection between organs or scarring in a mammal using an unmodified EPO that is optionally chemically modified or mutated. Without agreeing to the Examiner's rejection and solely to expedite the prosecution of this application, Applicants have (1) amended claim 39 to delete the term "prevent," and the phrase "is

Application No. 10/573,905 Atty. Docket No. WP03-1A04-US 4/24/2009

optionally chemically modified or mutated;" and (2) amended claim 39 to add "is chemically modified at one or more lysine residues or the N-terminal amino group, wherein said chemical modification is carbamylation." These amendments render the current enablement rejection most as the Examiner, page 4 of the Office Action, indicates that the specification is enabling for the amended scope of claim 39.

Dependent claims 41, 56 and 67 all ultimately depend from claim 39 and incorporate the limitations of claim 39 via their dependencies and therefore are enabled as well. Accordingly, Applicants assert that the specification is enabling for the claimed invention and that the indicated claims should be allowed.

Application No. 10/573,905 Any. Donket No. WP03-1A04-US 4/24/2009

CONCLUSION

Applicants respectfully request consideration and entry of the amendments and remarks into the file for the above-identified application.

Respectfully submitted,

Date: April 24, 2009

雪

42,623

(Reg. No.)

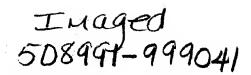
WARREN

PHARMACEUTICALS, INC.

712 Kitchawan Road

Ossining, New York 10562

(914) 762-7586





UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
F.O. Bos. 1430
Alexandria, Virginia 22313-1450
www.uspto.gov

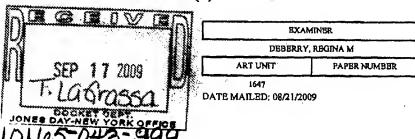
NOTICE OF ALLOWANCE AND FEE(S) DUE

61297

7590

08/21/2009

WARREN PHARMACEUTICALS, INC 712 KITCHAWAN ROAD OSSINING, NY 10562



APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO.

10/573,905 05/30/2006 Michael Brines WP03-1 A04-US 2092

TITLE OF INVENTION: TISSUE PROTECTIVE CYTOKINES FOR THE TREATMENT AND PREVENTION OF SEPSIS AND THE FORMATION OF ADHESIONS

APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUB	Prby. Paid issue fee	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$ 0	\$1810	11/23/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above,

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEB (if required) and twice the amount of the ISSUE FBE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUB FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER; Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Page 1 of 3

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

= 50ue 4 Publication Fee due 11-21-09 Confirm Patent term Adj. 1 Request to Reconsider Patent Term Adj.

	Application No.	Applicant(s)		
A1 - 45 P. A. H A. 1174	10/573,905	BRINES ET AL.		
Notice of Allowability	Examiner	Art Unit		
	Regina M. DeBerry	1647		
The MAILING DATE of this communication apperaison being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this applied or other appropriate communication IGHTS. This application is subject to	plication. If not included will be mailed in due course. THIS		
1. X This communication is responsive to 4/24/09.				
2. The allowed claim(s) is/are 39. 41. 56. 67 (renumbered as	1-4, respectively).			
 Acknowledgment is made of a claim for foreign priority unerly a) All b) Some* c) None of the: Certified copies of the priority documents have a copies of the priority documents have a copies of the priority documents have a copies of the certified copies of the priority documents have a copies of the certified copies of the priority documents have a copies of the priority documents have a copies of the priority documents have a copies and copies of the priority documents have a copies of the prio	been received. been received in Application No			
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	of this communication to file a reply IENT of this application.	complying with the requirements		
 A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give 				
5. CORRECTED DRAWINGS (as "replacement sheets") mus (a) including changes required by the Notice of Draftspers 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Paper No./Mail Date Identifying indicis such as the epplication number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the DEPOSIT OF and/or INFORMATION about the depositached Examiner's comment regarding REQUIREMENT.	on's Patent Drawing Review (PTO- a Amendment / Comment or in the O .84(o)) should be written on the drawin he header according to 37 CFR 1.121(o sit of BIOLOGICAL MATERIAL n	office action of ligs in the front (not the back) of i). Tust be submitted. Note the		
	TON THE BET COST OF BIOLOGICA			
Attachment(s) 1. ☐ Notice of References Cited (PTO-892)	5. Notice of Informal Pr	atent Application		
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Summary Paper No./Mail Date	(PTO-413),		
Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date	7. ⊠ Examiner's Amendment/Comment			
Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. Examiner's Statement of Reasons for Allowance			
íb ý	9. ☐ Other /Christine J Saoud/ Primary Examiner, Art t	Jnit 1647		
w.,	1			

Application/Control Number: 10/573,905

Art Unit: 1647

EXAMINER'S AMENDMENT/COMMENT

An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's amendment was given in a telephone interview with Attorney Michael Yamin on 19 August 2009.

The application has been amended as follows:

Please cancel claims 1, 37, 38, 40, 49-55, 57-66, 68 and 69.

In claim 56, line 1: please change "The method of any one of claims 39" to Tthe method of claim 39".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina M. DeBerry whose telephone number is (571) 272-0882. The examiner can normally be reached on 9:00 a.m.-6:30 p.m.

Application/Control Number: 10/573,905

Art Unit: 1647

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Page 3

supervisor, Manjunath N. Rao can be reached on (571) 272-0939. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christine J Saoud/ Primary Examiner, Art Unit 1647

/R. M. D./ Examiner, Art Unit 1647 8/19/09

Application/Control Number: 10/573,905 Art Unit: 1647

Page 4